Project 2

<Blackjack>

(Revised)

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Name: Moreno, Brenda

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Introduction:

What is Blackjack?

Blackjack, also known as "21", is a gambling card game.

Objective:

The objective of the game is for the player to get as close to the number 21 to win against the dealer. The player can hit as many times as they would like; however, too many cards can result into a bust.

How the Game Works:

Unlike other card games, Blackjack uses one to eight decks of cards. Each deck of cards contains 52 cards. It is common for multiple players to be seen seated at a Blackjack table in a casino. However, the players do not compete against each other. Each player plays against the dealer. The player must deal to play. Once the game has begun, the player is given two cards and the dealer flips their first card. The player can either hit, split, stand, or surrender.

Once the player has finished their turn, the dealer will turn over their hole card. The dealer's hand must be greater than or equal to 17. If the dealer stands at a 17, it is called a "soft 17."

Card Value:

2-10: The written face value.

Jack, Queen, and King: 10

Ace: 1 or 11.

(Note: The Ace card is the only card that carries two available values. If the player draws an Ace, he or she must select the value of the card.)

Tip and Tricks:

- ❖ The odds of winning at blackjack are substantially high. Yet, the player must be smart enough to know when to hit or stand.
- ❖ The most important tip when playing blackjack is to not reach 21 when hitting. The player does not need 21 to win. If the player goal is to reach 21, they run at a higher chance of losing.
- ❖ It is best to stand between the range of 17-20. Treat Ace's as 11, unless given a blackjack or offered to split.
- ❖ Split Aces and eights. Splitting only applies to same value cards. This can promote the players chances of winning a little more money.
- ❖ Know when to quit. The worst thing that any player can do is getting addicted. Set a limit and stick to it.

- ❖ Do not gamble when facing financial issues.
- ❖ Keep emotions under control.

Blackjack Terms:

Blackjack: Two cards equal to the value 21 in the first round

*Bust/Break***:** Card value has passed 21 and they automatically lose.

Dealer/House: Is the player's opponent.

Hit: Player asks and is given another card

Split: Player is able to separate the cards into two separate hands. Only applies to same value cards.

Stand: Player stands with his/her cards

Summary:

Project Size:

The number of variables:

The number of methods:

Description:

This is a revision of Project 1.

Blackjack is a simple game. Do not pass 21 and win against the dealer. But as an avid player of the game there are strategies that common players do not know. For that was the challenge in creating the revision, on how to implement those strategies in code.

Pseudocode:

1. Enter the variables to be inputted by user
2. Ask user to deal or exit
3. If exit, terminate the game
4. If deal, start the game
   - a. Output user's two cards
   - b. Output dealer's first card
   - c. If user gets Blackjack
     - i. Print: Win!
   - d. If user get same value of cards offer if they would like to split
     - i. If split, separate the hands and proceed with the game
   - e. Ask the user to hit or stand
     - i. Input Stand:
       - 1. Print: Dealer's hole card
         - a. If user's card < dealer's card

         i. Print: You lose
      b. If user's card > dealer's card
         i. Print: Winner
    ii. Input Hit:
      1. Print: Give the user one card
        a. If user's card value is >= 22
          i. Print: Bust
        b. If user's card value is = 21
          i. Print: Winner
        c. If user's card value is < 21
          i. Ask user to hit or stand
            1. Repeat until winner is declared

Flowchart:

Checkoff List:

Reference:

  Craps Game. Lehr, Mark

  Lectures and Lab. Lehr, Mark

  "Starting out with C++ From Control Structure through Objects" Gaddis, Tony Ninth Edition